



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/639,925	08/12/2003	Dirk Prekszas	920602-94605	6666
23644	7590	09/19/2007		
BARNES & THORNBURG LLP			EXAMINER	
P.O. BOX 2786			LE, TOAN M	
CHICAGO, IL 60690-2786			ART UNIT	PAPER NUMBER
			2863	
			MAIL DATE	DELIVERY MODE
			09/19/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/639,925	PREIKSAS ET AL.	
	Examiner	Art Unit	
	Toan M. Le	2863	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 09 July 2007.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 37-70 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 37-70 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 27 July 2005 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

Claim 38 recites the limitation "the same intermediate value" in line 5. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 37-70 are rejected under 35 U.S.C. 102(b) as being anticipated by Kokubo et al. (US Patent No. 4,871,912).

Referring to claim 37, Kokubo et al. disclose an instrument having:

- a) a user controllable operating parameter having a number of possible user controllable parameter values (col. 3, lines 9-62);
- b) a further operating parameter which is at least partially dependent on the user controllable parameter and which has any of a number of possible further parameter values, each corresponding to a respective one of the user controllable parameter values (col. 3, lines 9-62);
- c) a memory 30/37 (figure 1) for storing the possible further parameter values;
- d) a selector 33/42 (figure 1) for selecting one of the further stored parameter values for the further operating parameter in response to the selection by the user of the associated user controllable parameter value and for controlling the instrument accordingly (col. 3, lines 63-68 to col. 4, lines 1-18);

- e) whereby, if the selected user controllable parameter value is one for which there is no associated further parameter value stored in the memory, the instrument is operable to interpolate between further parameter values, stored in the memory, which correspond to user controllable parameter values in closest proximity to the selected user controllable parameter value to obtain a further parameter value corresponding to the selected user controllable parameter value (col. 4, lines 42-68 to col. 5, lines 1-9);
- f) a tuner for enabling a user to adjust the selected further parameter value, after a given user controllable parameter value has been selected, to obtain an adjusted further parameter value (col. 4, lines 42-68 to col. 5, lines 1-9);
- g) updating apparatus 31 (figure 1) for updating the memory so that the adjusted further parameter value is selected if the given user controllable parameter value is again selected for the user controllable operating parameter (col. 3, lines 63-68 to col. 4, lines 1-68 to col. 5, lines 1-9).

As to claim 38, Kokubo et al. disclose an instrument, in which the updating apparatus is such that if the selected, interpolated further parameter value is adjusted, the updating apparatus is operable to update each of the two values in the memory means so that the interpolation would have yielded the adjusted value in response to the selection of the same intermediate value of user controllable parameter had this occurred after the updating (col. 4, lines 42-68 to col. 5, lines 1-45).

Referring to claim 39, Kokubo et al. disclose an instrument, in which if the selected, interpolated further parameter is updated, only the two values in the memory updated (col. 4, lines 42-68 to col. 5, lines 1-45).

As to claim 40, Kokubo et al. disclose an instrument, in which the stored values of the further parameter are arranged in the memory in an index in which the stored values are arranged in an order corresponding to progressively changing values of the associated user controlled parameter (col. 4, lines 42-68 to col. 5, lines 1-45).

Referring to claim 41, Kokubo et al. disclose an instrument, in which the further operating parameter is one of a plurality of such parameter, values for all of which are stored in the memory (col. 4, lines 42-68 to col. 5, lines 1-45).

As to claim 42, Kokubo et al. disclose an instrument, in which the instrument is a charged particle beam instrument having a beam generator for generating charged particles and for subjecting the particle to an accelerating voltage to create a beam, and an alignment element for controlling the alignment of the beam, wherein the accelerating voltage constitutes the user controllable parameter and the further operating parameter comprises a setting for the alignment element (col. 3, lines 29-37 and lines 63-68 to col. 4, lines 1-10).

Referring to claim 43, Kokubo et al. disclose an instrument, in which the alignment element is a magnetic coil, and the associated further parameter is the value or relative value of current passed through the coil (col. 3, lines 29-37).

Referring to claim 44, Kokubo et al. disclose an instrument, in which the alignment element is an electrode the value of the associated parameter being the voltage applied to the electrode (col. 3, lines 29-39).

As to claim 45, Kokubo et al. disclose an instrument, in which the instrument has a plurality of different alignment coils, the further operating parameter is one of a plurality of such parameter, values for all of which are stored in the memory, and the further operating parameters

comprise the currents in the coils or the relative current magnitudes in the coils (col. 3, lines 29-39).

Referring to claim 46, Kokubo et al. disclose an instrument, in which the charged particle beam instrument is a scanning electron microscope, the beam generating comprising an electron gun having a cathode and an extraction electrode to which said accelerating voltage is applied, the alignment coils acting as gun alignment coils for controlling the alignment of the beam onto an electron optical axis of the microscope (col. 3, lines 9-39).

As to claim 47, Kokubo et al. disclose an instrument, in which the electron microscope includes a plurality of apertures in the path of a beam to be generated by the beam generator, wherein the alignment coils are operable to direct the beam through any selected one of the apertures (col. 3, lines 9-39).

Referring to claim 48, Kokubo et al. disclose an instrument, in which the magnitude of the accelerating voltage comprises one of a plurality of user controllable parameters, another such parameter being constituted by the identity of the aperture through which the beam is to pass (col. 5, lines 19-46 and 49-66).

As to claim 49, Kokubo et al. disclose an instrument, in which the stored values are arranged in a list in which each value is identified by a respective index code representative of the combination of accelerating voltage and aperture identify for which the stored value of alignment coil current or relative current at that entry applies (col. 3, lines 38-55; col. 5, lines 19-46 and 49-66).

Referring to claim 50, Kokubo et al. disclose an instrument, wherein the list is part of a look-up table in which, for each index code, there are also stored values for additional further

parameters applicable to the respective combination of aperture identity and accelerating voltage (col. 3, lines 38-55; col. 5, lines 19-46 and 49-66).

As to claim 51, Kokubo et al. disclose an instrument, in which the instrument includes stigmator coils for correcting the distortion of the electron beam, the current for each such coil constituting a respective additional further parameter (col. 3, lines 38-55; col. 4, lines 21-27).

Referring to claim 52, Kokubo et al. disclose an instrument, in which the instrument has a number of operating modes, each of which constitutes a user controllable parameter, the index code also being representative of the state of at least one of the operating modes (col. 3, lines 38-55).

As to claim 53, Kokubo et al. disclose an instrument, wherein the instrument is a scanning charged particle beam instrument having a gun for generating the beam of charged particles, a plurality of apertures through any selected one of which the beam may pass, an accelerating electrode to which a voltage is applied to accelerate the particles away from the gun, and at least one alignment element for directing the beam through the selected aperture, wherein the further parameter values which are stored in a memory comprise values for the settings of the alignment element dependent on the voltage applied to the accelerating electrode and the choice of aperture (col. 3, lines 9-55).

Referring to claim 54, Kokubo et al. disclose an instrument having:

- a) a user controllable operating parameter having a number of possible user controllable parameter values (col. 3, lines 9-62);

- b) a further operating parameter which is at least partially dependent on the user controllable parameter and which has any of a number of possible further parameter values, each corresponding to a respective one of the user controllable parameter values (col. 3, lines 9-62);
- c) a memory 30/37 (figure 1) for storing the possible further parameter values;
- d) a selector 33/42 (figure 1) for selecting one of the further stored parameter values for the further operating parameter in response to the selection by the user of the associated user controllable parameter value and controlling the instrument accordingly (col. 3, lines 63-68 to col. 4, lines 1-18);
- e) wherein the stored further parameter values are arranged in the memory in an index in which the stored values are arranged in an order corresponding to progressively changing values of the associated user controllable operating parameter (col. 4, lines 42-68 to col. 5, lines 1-45); and
- f) updating apparatus 31 (figure 1) for updating the memory so that the adjusted further parameter value is selected of the given user controllable parameter value is again selected for the user controllable operating parameter (col. 3, lines 46-68 to col. 4, lines 1-68 to col. 5, lines 1-45).

As to claim 55, Kokubo et al. disclose an instrument having:

- a) a user controllable operating parameter having a number of possible user controllable parameter values 9 (col. 3, lines 9-62);
- b) a further operating parameter which is at least partially dependent on that of the user controllable parameter and which has any of a number of possible further parameter values, each corresponding to a respective one of the user controllable parameter values (col. 3, lines 9-62);

- c) memory 30/37 (figure 1) for storing a number of possible further parameter values;
- d) a selector 33/42 (figure 1) for selecting one of the further stored parameter values for the further operating parameter in response to the selection by the user of the associated user controllable parameter value and for controlling the instrument accordingly (col. 3, lines 63-68 to col. 4, lines 1-18);
- e) wherein the instrument is a charged particle beam instrument having a beam generator for generating charged particle and for subjecting the particles to an accelerating voltage to create a beam, alignment coils for controlling the alignment of the beam and a plurality of apertures, the alignment coils being operable to direct the beam through any selected one of the aperture the beam being directed through only one aperture at any one time, wherein the accelerating voltage and identity of aperture through which the beam is to pass are user controllable operating parameters and the further operating parameter comprises a current setting for the alignment coils, and wherein the stored further parameter values are arranged in a list in which each further parameter value is identified by a respective index code representative of the combination of accelerating voltage aperture and identity to which the further parameter value applies (col. 3, lines 9-55; col. 5, lines 49-66);
- f) updating apparatus 31 (figure 1) for updating the memory so that the adjusted further parameter value is selected if the given user controllable parameter value is again selected for the user controllable operating parameter (col. 3, lines 63-68 to col. 4, lines 1-41).

Referring to claim 56, Kokubo et al. disclose an instrument, in which the instrument is a charged particle beam instrument having beam generating means for generating charged particles and for subjecting the particle to an accelerating voltage to create a beam, and an alignment

element for controlling the alignment of the beam, wherein the accelerating voltage constitutes the user controllable parameter and the further operating parameter comprises a setting for the alignment element (col. 3, lines 9-55).

As to claim 57, Kokubo et al. disclose an instrument, in which the charged particle beam instrument is a scanning electron microscope, the beam generating means, comprising an electron gun having a cathode and an extraction electrode to which the accelerating voltage is applied, the alignment coils acting as gun alignment coils for controlling the alignment of the beam onto an electron optical axis of the microscope (col. 3, lines 9-55).

Referring to claim 58, Kokubo et al. disclose an instrument, in which the electron microscope includes a plurality of apertures in the path of a beam to be generated by the beam generating means, wherein the alignment coils are operable to direct the beam through any selected one of the apertures (col. 3, lines 9-55; col. 5, lines 19-46 and 49-66).

As to claim 59, Kokubo et al. disclose an instrument, in which the magnitude of the accelerating voltage comprises one of a plurality of user controllable parameters, another such parameter being constituted by the identity of the aperture through which the beam is to pass (col. 3, lines 63-68 to col. 4, lines 1-10; col. 5, lines 19-46 and 49-66).

Referring to claim 60, Kokubo et al. disclose an instrument, in which the stored values are arranged in a list in which each the value is identified by a respective index code representative of the combination of accelerating voltage and aperture identity for which the stored value of alignment coil current or relative current at that entry applies (col. 3, lines 38-55).

As to claim 61, Kokubo et al. disclose an instrument, in which the list is part of a look-up table, for each index code, there are also stored values for additional parameters applicable to the

respective combination of aperture identity and accelerating voltage (col. 3, lines 38-55; col. 5, lines 19-46 and 49-66).

Referring to claim 62, Kokubo et al. disclose an instrument, in which the instrument includes stigmator coils for correcting the distortion of the electron beam, the current for each such coil constituting a respective additional further parameter (col. 3, lines 38-55; col. 4, lines 21-27).

As to claim 63, Kokubo et al. disclose an instrument having, wherein the list is part of look-up table in which, for each index code, there are also stored values for additional parameters applicable to the respective combination of aperture identity in accelerating voltage (col. 3, lines 38-55; col. 5, lines 19-46 and 49-66).

Referring to claim 64, Kokubo et al. disclose an instrument, in which the instrument includes stigmator coils for correcting the distortion of the electron beam, the current for each such coil constituting a respective additional further parameter (col. 3, lines 38-55; col. 4, lines 21-27).

As to claim 65, Kokubo et al. disclose an instrument having:

- a) a user controllable operating parameter having a number of possible user controllable parameter values 9 (col. 3, lines 9-62);
- b) a further operating parameter which is at least partially dependent on that of the user controllable parameter and which has any of a number of possible further parameter values, each corresponding to a respective one of the user controllable parameter values (col. 3, lines 9-62);
- c) a memory 30/37 (figure 1) for storing the possible further parameter values;

d) a selector 33/42 (figure 1) for selecting one of the further stored parameter values for the further parameter in response to the selection by the user of the associated user controllable parameter value and for controlling the instrument accordingly (col. 3, lines 63-68 to col. 4, lines 1-18);

e) wherein the instrument is an electron microscope comprising an electron gun having a cathode and an extraction electrode to which an accelerating voltage is applied to create a beam, and gun alignment coils for controlling the alignment of the beam onto an electron optical axis of the microscope wherein the accelerating voltage constitutes the user controllable operating parameter and the further operating parameter comprises a setting for the gun alignment coils, and wherein the microscope has a number of operating modes, each of which also constitutes a user controllable operating parameter, an index code in the memory also being representative of the state of at least one of the operating modes (col. 3, lines 63-68 to col. 4, lines 1-41);

f) a tuner for enabling a user to adjust the selected further parameter value, after a given user controllable parameter value has been selected, to obtain an adjusted further parameter value (col. 4, lines 42-68 to col. 5, lines 1-9);

g) updating apparatus 31 (figure 1) for updating the memory so that the adjusted further parameter value is selected if the given user controllable parameter value is again selected for the user controllable parameter (col. 3, lines 63-68 to col. 4, lines 1-41).

Referring to claim 66, Kokubo et al. disclose an instrument, in which the electron microscope includes a plurality of apertures in the path of a beam to be generated by the beam

generating means, wherein the alignment coils are operable to direct the beam through any selected one of the apertures (col. 3, lines 9-39; col. 5, lines 19-46 and 49-66).

As to claim 67, Kokubo et al. disclose an instrument, in which the magnitude of the accelerating voltage comprises one of a plurality of user controllable parameters, another such parameter being constituted by the identity of the aperture through which the beam is to pass (col. 5, lines 19-46 and 49-66).

Referring to claim 68, Kokubo et al. disclose an instrument, in which the stored values are arranged in a list in which each value is identified by a respective index code representative of the combination of accelerating voltage and aperture identify for which the stored value of alignment coil current or relative current at that entry applies (col. 3, lines 38-55; col. 5, lines 19-46 and 49-66).

As to claim 69, Kokubo et al. disclose an instrument, in which the list is part of a look-up table in which, for each index code, there are also stored values for additional further parameters applicable to the respective combination of aperture identity and accelerating voltage (col. 3, lines 38-55; col. 5, lines 19-46 and 49-66).

Referring to claim 70, Kokubo et al. disclose an instrument, in which the instrument includes stigmator coils for correcting the distortion of the electron beam, the current for each such coil constituting a respective additional further parameter (col. 3, lines 38-55; col. 4, lines 21-27).

Response to Arguments

Applicant's arguments filed 7/9/07 have been fully considered but they are not persuasive.

Referring to claim 1, Applicant argues that “there is no disclosure or suggestion that the transmission electron microscope of US 4871912 could include a tuner by which a user could adjust (effectively ‘fine tune’) a parameter value, interpolated or otherwise, currently being used in the instrument. Nor does this reference disclose or suggest updating apparatus which updates the memory to take into account adjustment of a parameter value by the tuner, so that the adjusted value is called up if the same user controllable parameter is subsequently chosen.”

Answer: Kokubo et al. (reference ‘912) disclose “In the configuration constructed as described above, the operator enters desired accelerating voltage and magnification from the operator's console 33. Then, the internal computer 29 controls the accelerating voltage source 5 to achieve the entered accelerating voltage. Also, the computer 29 reads data about the specified accelerating voltage and magnification from the ROM 30, and controls the power supplies 6, 7, 8, 10, 12 for the electron lenses and the power supplies 19, 20, 21, 22 for the deflector coils according to the data read out in this way. As a result, an image of the specimen is projected on the face of the image intensifier 14 at the desired magnification and at the desired accelerating voltage. In this case, the operator must select values from the discrete values of magnification and accelerating voltage stored in the ROM. The image projected on the fact of the intensifier 14 is converted into an electrical signal, which is fed via a video cable 44 to the frame memory 38 and stored in this memory 38 connected with the external computer bus 35. When the external computer bus 35 is connected with the internal bus 28, all the data stored in the internal ROM 30 is transferred via the serial interface 34 to the external RAM 37 and held there under the control of the external computer 36. The external computer 36 processes the image data stored in the frame memory 38 by fast Fourier transform or other

method to analyze the data. Then, the computer calculates the amount of correction made for the defocusing of the objective lens 9, the spot size of the electron beam on the specimen, the amount of correction made for astigmatism, and other amounts, based on the result of the analysis, so as to attain the optimum conditions of observation. The external computer 36 further calculates the values of currents fed to the lenses and coils from the data stored in the external RAM 37 so that the amount of defocusing of the objective lens and the spot size of the beam on the specimen may coincide with the calculated values. When the operator specifies any desired magnification through the operator's console 42, the external computer 36 calculates the values of currents supplied to the lenses and coils, from the data stored in the external RAM 37, in order to accomplish the desired magnification without rotating the image. Since various values calculated by the external computer are based on the data previously stored in the internal ROM, the normal operation of the electron microscope is not hindered. More specifically, if the specified magnification M_0 does not exist in the table stored in the internal ROM, then the external computer 36 selects the values of currents corresponding to the two values of magnification closest to the specified value, from the values stored in the external RAM 37. This RAM 37 stores the values of currents which are fed to the lenses and coils, corresponding to various values of accelerating voltage and magnification. Then, the computer calculates, for example by interpolation, the values of currents which are fed to the lenses and coils and produce the specified magnification without rotating the image. For instance, the operator enters 1100 as the magnification M_0 from the operator's console 42. The computer 36 then extracts data corresponding to the two values of magnification M_1 and M_2 closest to the magnification M_0 , from the values of currents which are fed to the lenses and coils and stored in

the RAM 37. M_1 is immediately smaller than M_0 , while M_2 is immediately larger than M_0 .

That is,

$$\underline{M_1 < M_0 < M_2}$$

As an example, M_1 and M_2 are equal to 1000 and 1200, respectively. The external computer 36 calculates by interpolation the values of the currents that give the magnification of 1100, from the data corresponding to the magnifications M_1 and M_2 . The computed current values are routed via the serial interface 34 to the internal RAM 31 and stored there. The internal computer 29 controls the power supplies for the lenses and the power supplies for the coils in accordance with the values stored in the internal RAM 31 under the instruction from the external computer 36. As a result, an electron image is projected on the face of the intensifier 14 at the desired magnification.” (col. 3, lines 63-68 to col. 4, lines 1-68 to col. 5, lines 1-9)

Thus, reference ‘912 does disclose those limitations above in the selecting, tuning, adjusting, and updating steps.

Applicant further argues that “However, Applicants also wish to point out that US 4871912 fails to show or suggest an arrangement in which the electron beam can pass through any selected one of a number of different apertures.”

Answer: reference ‘912 discloses “The amount of defocusing of the electron beam and the astigmatism-correcting coils are controlled in like manner. The invention can be also applied to the case where a small condenser lens (not shown) is installed between the second condenser lens 3 and the objective lens 9. The angle at which the electron beam impinging on the specimen 4 spreads is controlled by controlling the small lens, using the external computer.

Further, the invention is applicable to the case in which the angle of the electron beam hitting the specimen 4 is set to any desired value by controlling the deflector coils 22 and 23 through the use of the external computer. In these cases, the convergent beam angle and the tilt angle are controlled within the ranges previously built into the internal ROM 30. In the examples described above, the electron microscope is of the transmission type. Of course, the invention can also be applied to scanning electron microscopes.

Thus, reference '912 does disclose the limitations above.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

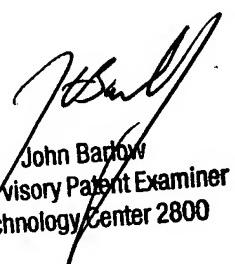
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Toan M. Le whose telephone number is (571) 272-2276. The examiner can normally be reached on Monday through Friday from 9:00 A.M. to 5:30 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on (571) 272-2269. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Toan Le

September 13, 2007


John Barlow
Supervisory Patent Examiner
Technology Center 2800